

## MECHANICAL DATA

Bulb . . . . .	T-6½
Base . . . . .	E9-1, Small Button 9-Pin
Outline . . . . .	6-2
Basing . . . . .	9FC
Cathode . . . . .	Coated Unipotential
Mounting Position . . . . .	Any

## ELECTRICAL DATA

### HEATER CHARACTERISTICS

	4CX7	6CX7
Heater Voltage . . . . .	4.2	6.3 Volts
Heater Current . . . . .	600	400 Ma
Heater Warm-up Time <sup>1</sup> . . . . .	11	Seconds
Heater-Cathode Voltage (Design Center Values)		
Heater Negative with Respect to Cathode		
Total DC and Peak <sup>2</sup> . . . . .	200	200 Volts Max.
Heater Positive with Respect to Cathode		
DC . . . . .	100	100 Volts Max.
Total DC and Peak . . . . .	200	200 Volts Max.

### DIRECT INTERELECTRODE CAPACITANCES (Shielded)<sup>3</sup>

	Section No. 1	Section No. 2
Grid to Plate: (g to p) . . . . .	1.2	μμf
Input: g to (h+k+e.s.) . . . . .	2.4	μμf
Output: p to (h+k+e.s.) . . . . .	1.3	μμf
Heater to Cathode: (h to k) <sup>4</sup> . . . . .	2.4	2.2 μμf
Plate to Cathode: (p to k) . . . . .	0.17	0.17 μμf Max.
No. 2 Plate to No. 1 Plate and No. 1 Grid:		
No. 2 p to (No. 1 p+No. 1 g) . . . . .	0.027	μμf Max.
Plate to Plate: (No. 1 p to No. 2 p) . . . . .	0.017	μμf Max.
Grounded Grid Operation:		
Input: k to (g+i.s.+h+e.s.) . . . . .		4.2 μμf
Output: p to (g+i.s.+h+e.s.) . . . . .		1.7 μμf

### RATINGS (Design Center Values — Each Section)

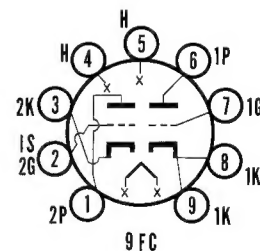
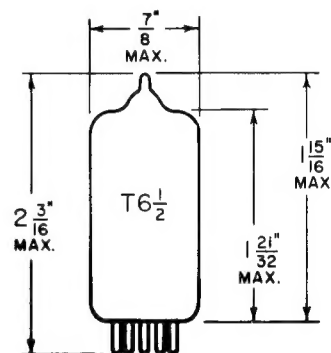
Plate Voltage <sup>2</sup> . . . . .	250 Volts Max.
Plate Dissipation . . . . .	2 Watts Max.
Cathode Current . . . . .	20 Ma Max.
Grid Circuit Resistance . . . . .	0.5 Megohm Max.

### CHARACTERISTICS — Class A<sub>1</sub> Amplifier (Each Section)

Plate Voltage . . . . .	150 Volts
Grid Voltage . . . . .	0 Volts
Cathode Bias Resistor . . . . .	220 Ohms
Plate Current . . . . .	9.0 Ma
Transconductance . . . . .	6400 μmhos
Amplification Factor . . . . .	39
Grid Voltage for I <sub>b</sub> = 10 μa (approx.) . . . . .	-10 Volts

## QUICK REFERENCE DATA

The Sylvania Types 4CX7 and 6CX7 are miniature medium mu twin triodes designed for operation as cascode (vhf) amplifiers. The 4CX7 features a 600 ma heater and controlled heater warm-up time for service in television receivers employing a series heater string.



SYLVANIA ELECTRIC  
PRODUCTS INC.

RADIO TUBE DIVISION  
EMPORIUM, PA.

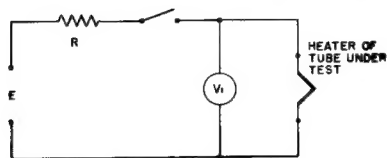
Prepared and Released By The  
TECHNICAL PUBLICATIONS SECTION  
EMPORIUM, PENNSYLVANIA

JANUARY 1956

PAGE 1 OF 6

## NOTES:

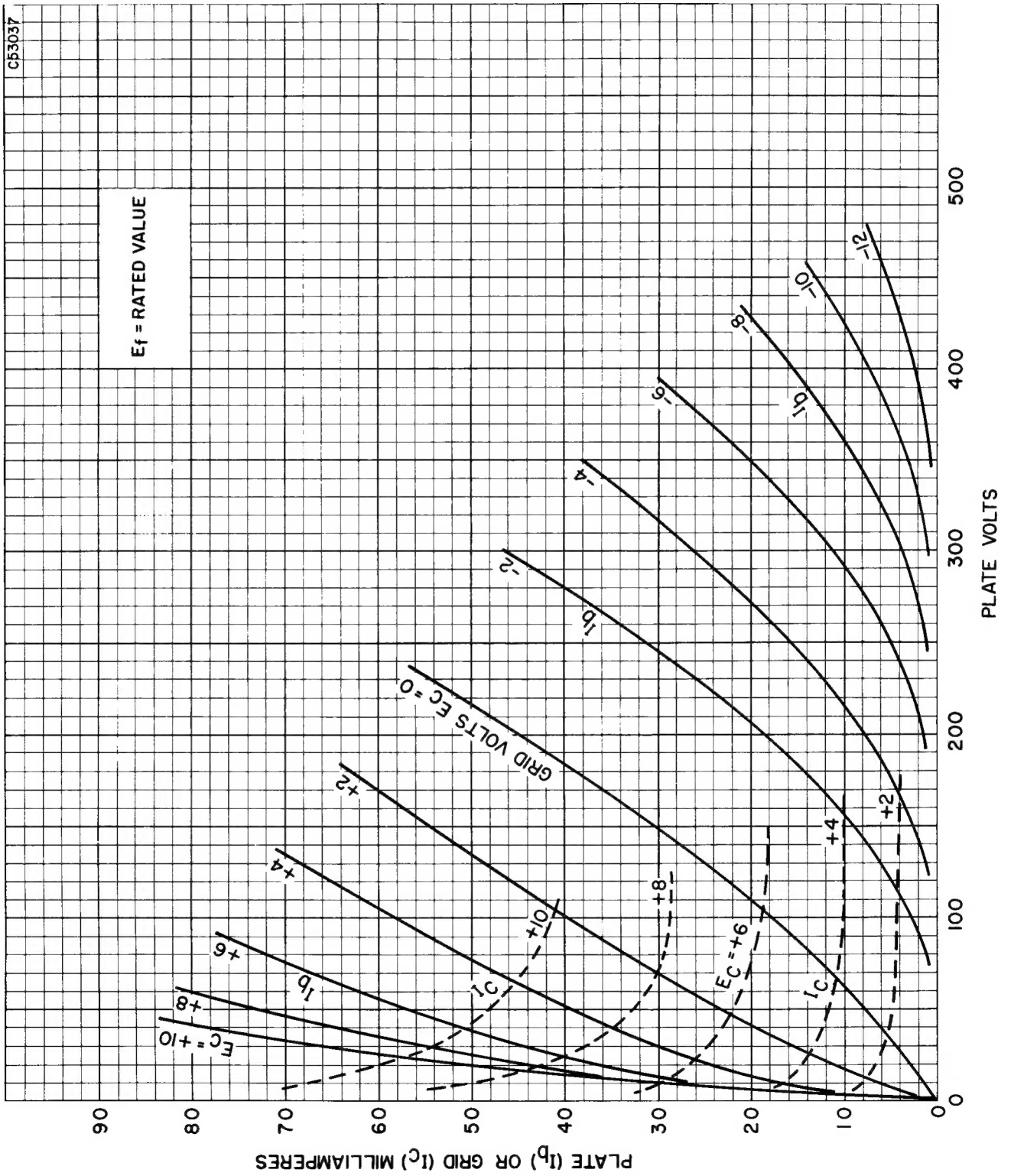
1. *Heater Warm-up Time is defined as the time required in the circuit shown below for the voltage across the heater terminals to increase from zero to the heater test voltage ( $V_1$ ). The conditions used in conjunction with the test circuit depend upon the rated heater voltage and current of the tube under test. For this type:  $E = 16.8$  Volts,  $R = 21.0$  Ohms,  $V_1 = 3.33$  Volts.*



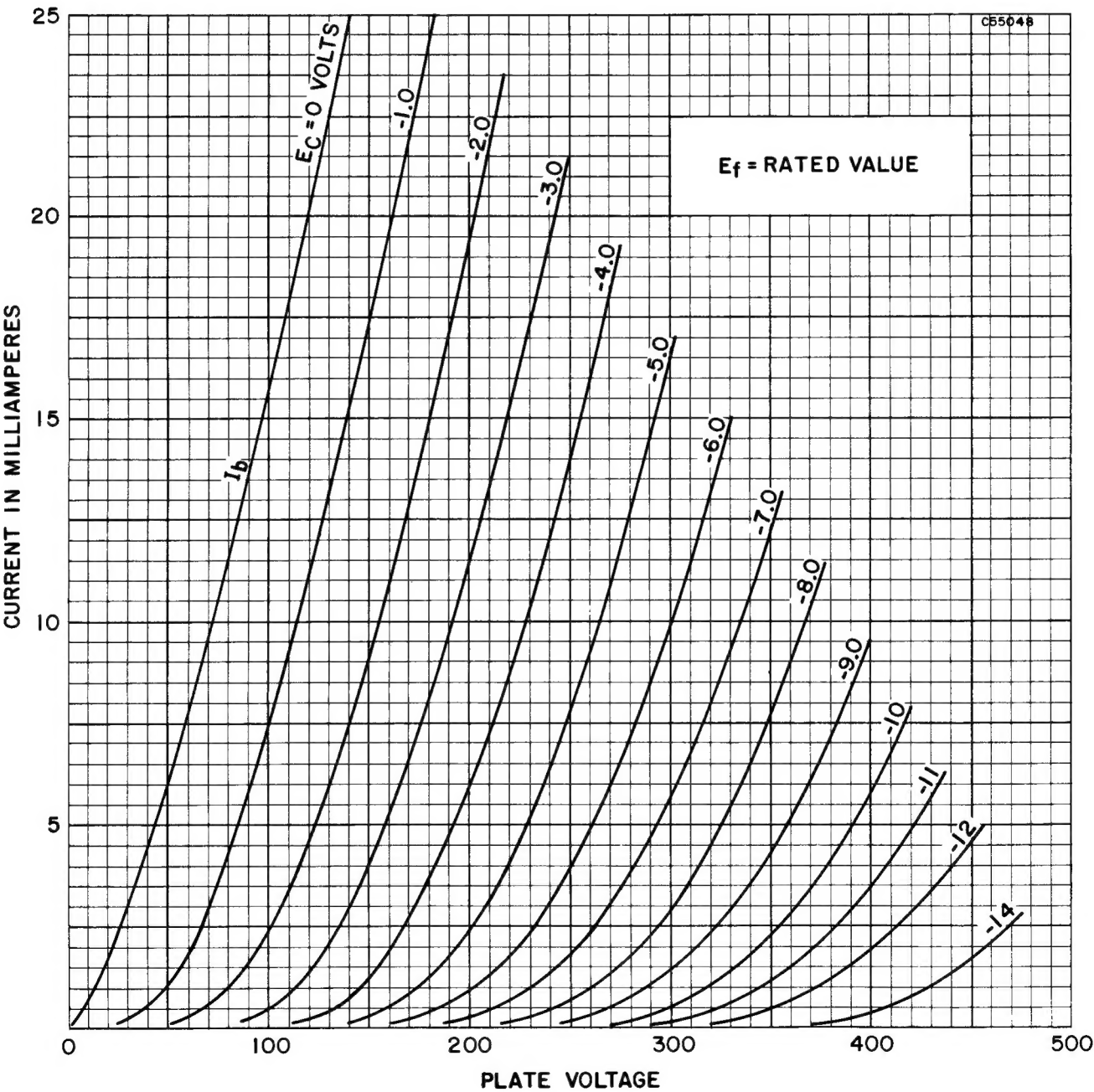
$E$  — Applied Voltage, RMS or DC  
 $R$  — Total Series Resistance  
 $V_1$  — Heater Test Voltage, RMS or DC  
(80% Rated Heater Voltage)

2. *Under cutoff conditions when the tube is used as a cascode amplifier, this rating may be as high as 300 volts maximum.*
3. *Shield No. 315 connected to heater unless specified differently.*
4. *Shield No. 315 connected to ground.*

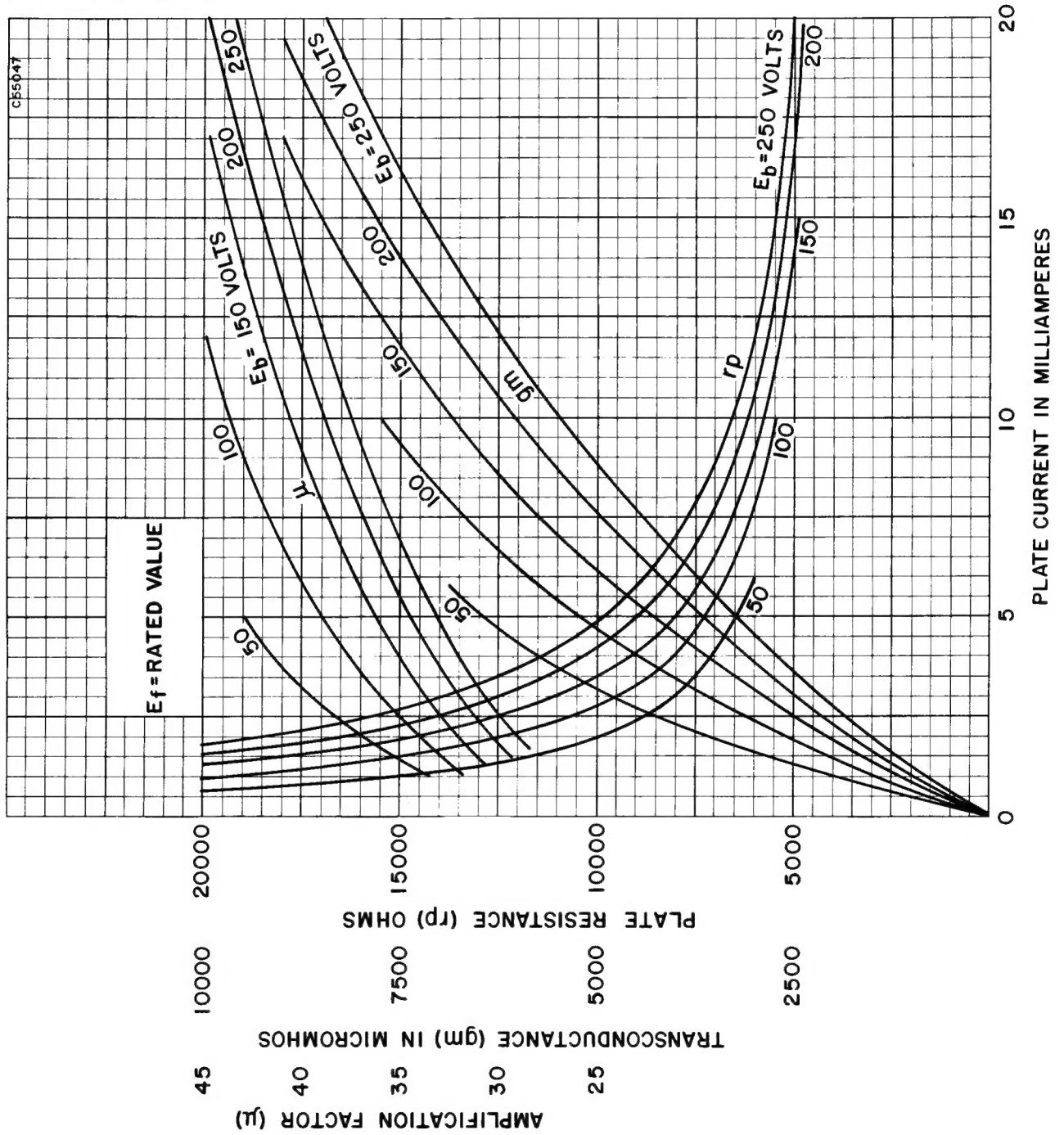
AVERAGE PLATE CHARACTERISTICS



AVERAGE PLATE CHARACTERISTICS



AVERAGE TRANSFER CHARACTERISTICS



AVERAGE TRANSFER CHARACTERISTICS

